Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 August 2001</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 August 2001</u> is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   New corrected drawings in compliance with 37 CFR 1.121(d) are required in this

application because Figures 1-4 identify the incorrect application title. Applicant is

advised to employ the services of a competent patent draftsperson outside the Office,

as the U.S. Patent and Trademark Office no longer prepares new drawings. The

corrected drawings are required in reply to the Office action to avoid abandonment of

the application. The requirement for corrected drawings will not be held in abeyance.

Specification

2.   The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

The following title is suggested: System and Method for Ordering Replacement

Printer Components Based on User Configurable Rules.

Examiners Note

3.   Claims 17-22 recite the limitation "One or more computer readable media" when

the more common practice is to simply state "Computer readable medium". Appropriate

correction is requested.

Claim Rejections - 35 USC § 101

4.   Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the

technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural

phenomena) that do not apply, involve, use, or advance the technological arts fail to

promote the "progress of science and the useful arts" (i.e., the physical sciences as

opposed to social sciences, for example) and therefore are found to be non-statutory

subject matter. For a process claim to pass muster, the recited process must somehow

apply, involve, use, or advance the technological arts.

Additionally, for a claimed invention to be statutory, the claimed invention

must produce a useful, concrete, and tangible result.

Regarding Claims 1-8, Claims 1-8 only recite an abstract idea. The recited

method for managing printer component inventories does not apply, involve, use or

advance the technological arts since all of the recited steps can be performed in the

mind of the user or by use of a pencil and paper. The claimed invention, as a whole, is

not within the technological art as explained above claims 1-8 are deemed to be

directed to non-statutory subject matter.

Examiner suggests that the applicant incorporate into Claims 1-8 language that

the proposed method is a computer-implemented (computerized) method and that at

least one of the method steps is implemented by a computer to overcome this rejection.

Correction required. See MPEP § 2106 [R-2].

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for
> patent, published under section 122(b), by another filed in the United States before the invention by
> the applicant for patent or (2) a patent granted on an application for patent by another filed in the
> United States before the invention by the applicant for patent, except that an international application
> filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of
> an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1, 4-7, 9, 12, 15-17, 20 and 22 are rejected under 35 U.S.C. 102(e) as

being anticipated by Haines et al., U.S. Patent No. 6,295,423.

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the

invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding Claims 1, 9 and 17 Haines et al. teach a system and method for

monitoring printer component inventories (consumable items for peripheral units)

wherein the system determines when to replace (replenish, order, reorder, stock, etc.) a

consumable item based on user defined (configurable, selectable, programmable,

"user-manipulable", etc.) rules (criteria, thresholds) that are triggered by printer

component events (messages, notifications, warnings, etc; Abstract; Column 2, Lines

20-63).

More specifically Haines et al. teach a method and system for managing printer component (part, product, item, supply, material, consumable, replaceable, etc.) inventories (stock, supply, etc.) comprising:

- defining one or more printer component rules (thresholds, criteria, parameters, etc.) for one or more printers in one or more organizations (groups, teams, divisions, entities, businesses, etc.) wherein each rule define a printer component replacement (replenish, reorder, restock, etc.) event (low toner/paper, etc.; Column 2, Lines 20-62; Column 5, Lines 65-68; Column 6, Lines 1-60; Figures 3, Elements 33; Figures 4-5; Table 1);

- monitoring printer components in printers to detect the occurrence of an event defined by a printer component rule (criteria, threshold, etc.; "Lifetime Monitoring Mechanism"; Column 2, Lines 29-40; Figure 3, Element 30a); and

- replacing a printer component when a printer component event is detected in a printer ("When the lifetimes of such components have expired, they must be replaced.", Column 1, Lines 28-29; "This can greatly facilitate replacement, reordering and restocking of the consumable items.", Column 9, Lines 1-2).
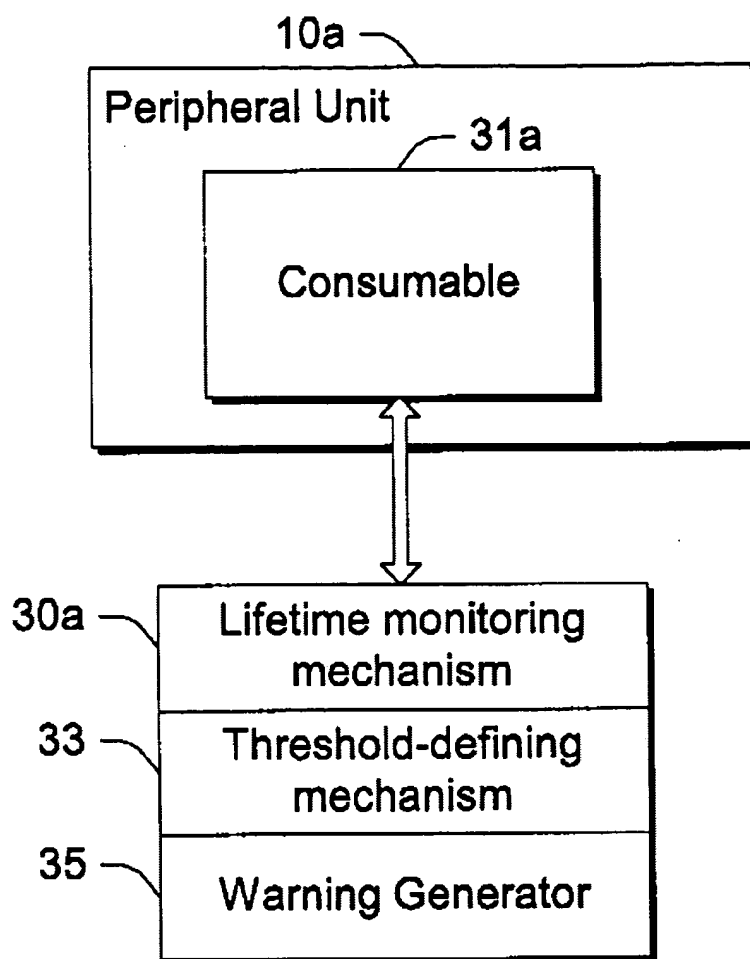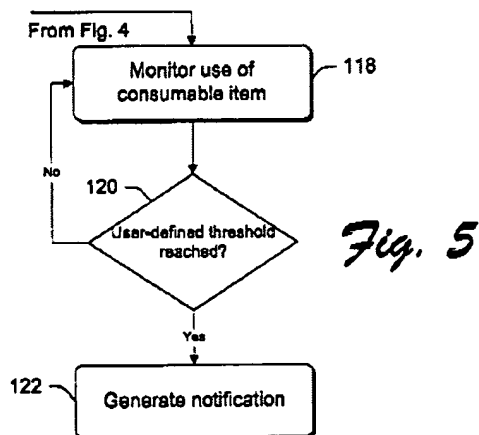
10a

Peripheral Unit

31a

Consumable

30a — Lifetime monitoring mechanism

33 — Threshold-defining mechanism

35 — Warning Generator

Fig. 3

Start

100 — Default threshold setting?

Yes → 102 — Keep default settings

No

104 — Determine operational parameter for defining a threshold value

Fig. 4

106 — Temporal parameter?

Yes

No

108 — Quantity parameter?

Yes

No

112 — Present different parameter options

110 — Other parameter?

Yes

No

114 — Select operational parameter option

116 — Set threshold value relative to selected operational parameter

To Fig. 5

From Fig. 4

118 — Monitor use of consumable item

No

120 — User-defined threshold reached?

Fig. 5

Yes

122 — Generate notification
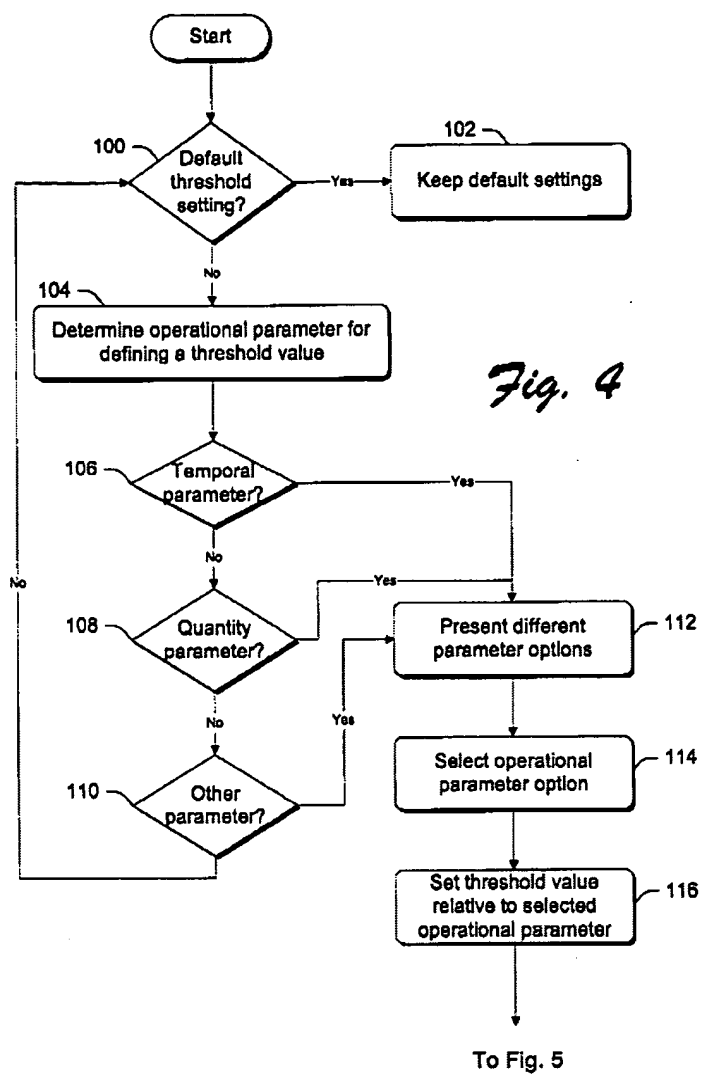
Regarding Claim 4 Haines et al. teach a user-configurable printer component inventory management system and method wherein the printer component further comprises at least one of the following (selected from the list of; Column 3, Lines 20-29; Column 5, Lines 14-63): toner cartridge, ink cartridge, dry medium cartridge, ink bladder, photoconductor, drum, belt, developer assembly, cleaning roller, oiling roller, transfer assemblies or print head.

Regarding Claim 5 Haines et al. teach a user-configurable printer component inventory management system and method wherein the printer component is a toner cartridge for a laser printer (Column 5, Lines 14-63) and the printer component event is a low toner condition (Column 1, Lines 45-50; Column 7, Lines 55-68).

Regarding Claims 6 and 20 Haines et al. teach a user-configurable printer component inventory management system and method further comprising providing (presenting, displaying, etc.) an interface (display, screen, prompt, connection, linkage, etc.) allowing one or more organizations (users, divisions, companies, entities, groups, teams, printer, etc.) to define printer component (part, item, material, supply, etc.) rules (threshold, criteria, parameters, etc.) for each printer/organization ("... a user-interface such as a printer control panel interface and display 22 (FIG. 2) can query the users as to their preferences.", Column 6, Lines 32-34; Column 6, Lines 27-65; Figure 2, Element 22).

Regarding Claims 7, 15-16 and 22 Haines et al. teach a user-configurable printer

component inventory management system and method wherein monitoring includes

receiving (viewing, providing, etc.) notification (warning, alarm, alert, message, etc.)

from an organization (printer, group, entity, user, system, etc.) that a printer event has

occurred (Column 2, Lines 38-40; column 6, Lines 10-16; Figure 3, Element 35).

Regarding Claim 12 Haines et al. teach that the system and method for

managing printer component inventory further comprises connecting to a network

(network interface card; Column 3, Lines 33-47; Figure 1).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 2-3, 8, 10-11, 13-14, 18-19 and 21 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Haines et al., U.S. Patent No. 6,295,423 as applied to

claims 1, 4-7, 9, 12, 15-17, 20 and 22 above and further in view of Hayward et al., U.S.

Patent No. 6,798,997.

Regarding Claims 2-3, 10 and 18-19 Haines et al. teach a method and system for

managing printer component inventories wherein consumable printer components are

replaced, re-ordered, re-stocked, etc. as discussed above.

Haines et al. does not expressly teach ordering and shipping the printer

component parts as claimed.

Hayward et al. teach the ordering and shipping, to the location of the printer, of

replacement printer components for which an event (threshold condition/criteria,

triggered rule) was detected, in the art of consumable inventory management, for the

purposes of ensuring users to do not run out of consumables (Abstract; Column 1, Lines

47-63; Column 2, Lines 1-4; Column 5, Lines 6-13; Figures 4, 7).

It would have been obvious to one skilled in the art at the time of the invention that the user-configurable system and method for managing printer component inventories as taught by Haines et al., with its ability to identify and recommend that users replace printer components based on user-definable rules/criteria, would have benefited from automatically/semi-automatically ordering (purchasing, having shipped, etc.) printer components that requiring replacement, making it easier for users to ensure that appropriate replacement components are on hand thereby reducing the printer's downtime (Haines et al.: Column 1, Lines 40-44).

Regarding Claims 8, 14 and 21 Haines et al. does not expressly teach that monitoring further comprises periodically polling the printer components/printers as claimed.

Hayward et al. teach periodically polling (querying, etc.) printer components/printers, in an analogous art of consumable replacement/management, for the purposes of determining the status (state, condition) of the printer component ("...track how many pages have been printed and/or ink expended in each color since the last time the consumable has been replenished.", Column 8, Lines 32-36; Column 8, Lines 25-45).

It would have been obvious to one skilled in the art at the time of the invention that the user-configurable printer component inventory management system and method as taught by Haines et al. would have benefited from periodically determining the status (condition, state, etc.) of the printer/printer components via polling (querying) in view of the teachings of Hayward et al.; the resultant system being further capable of determining the lifetime (status, condition, state, etc.) of the monitored printer component.

Regarding Claim 11 Haines et al. teach a system and method for managing printer component inventory further comprising:

- storing printer/printer component events (jobs, usage, print job characteristics, history, etc.) in a table (file, database, etc.) for one or more printers/organizations (Column 7, Lines 55-68; Column 8, Lines 1-11; Figure 6, Elements 46 and 48); and

- enabling users to enter and store (memory, etc.) rules into the (system) via an interface (screen, file, etc.; Column 6, Lines 17-45; Column 7, Lines 10-45; Figures 4-5).

Haines et al. is silent on where the user configurable rules (thresholds, criteria, etc.) are stored in the system, specifically Haines et al. does not expressly teach storing the printer component rules (criteria, thresholds, etc.) in a database as claimed.

Official notice is taken that enabling users to store and access information into

and from a data is old and very well known as databases provide a convenient and

organized mechanism for storing data.

It would have been obvious to one skilled in the art at the time of the invention

that the system and method for managing printer component inventory as taught by

Haines et al. would have benefited from storing a plurality of information including user-

defined printer component rules in view of the teachings of official notice; the resultant

system providing a convenient mechanism for storing and organizing the printer

component rules.

Further regarding Claim 11 the system as claimed is merely configured to

present an interface however the system does not actually present an interface. For the

purposes of examination examiner assumes the applicant will amend the claim to recite

that system actually presents an interface and users actually enter rules into the

system.

Regarding Claim 13 Haines et al. teach a printer component inventory

management system and method further comprising a plurality of printers and

computers connected via a network (Figure 1; Column 3, Lines 33-47).

Haines et al. does not expressly teach that a modem is used to connect with a computing device as claimed.

Hayward et al. teach a modem for connecting with a computing device, in an analogous art of consumables management, for the purposes of enabling users to connect to the Internet (Figures 2 and 8, Element 34).

It would have been obvious to one skilled in the art at the time of the invention that the user-configurable printer component inventory management system and method as taught by Haines et al. would have benefited from utilizing a modem to connect to a computing device in view of the teachings of Hayward et al.; the resultant system enabling users/systems to connect to the Internet.

Conclusion

9.   The prior art made of record and not relied upon is considered pertinent to
applicant's disclosure.

- LoBiondo et al., U.S. Patent No. 5,035,199, teach a printer component
inventory management system and method wherein the system semi-
automatically/automatically orders printer components, receives shipment/delivery
information and updates inventory information based on the received information.
LoBiondo et al. further teach that the printer component inventory management system
and method further comprises a user interface that enables users to define printer
component rules (e.g. threshold, reorder points) that are triggered by printer component
events/notifications.

- Tomidokoro, U.S. Patent No. 6,023,593, teach a method and system for
managing printer component inventories comprising printer component event
notification, automatic component ordering and shipping, periodically polling printer
components and a communication device.

- Haines et al, U.S. Patent No. 6,233,409, teach a method and system for
managing printer component inventories including but not limited to toner cartridges for
laser printers comprising: Internet/Web access, first and second organizations
(vendors, customers/users, etc.), automatically ordering and shipping of printer
components based on printer component events and ensuring duplicate printer
component orders are not ordered/sent/fulfilled.

- Haines, Robert, U.S. Patent No. 6,370,341, teach method and system for managing printer component inventories comprising managing inventories in one or more supply locations and replenishing inventories via the Internet or other communication mediums.

- Sekizawa, U.S. Patent No. 6,430,711, teaches a method and system for managing printer component inventories comprising: the automatic ordering and shipment of printer components, via a network, based on printer component events/statuses, storing printer component information in a database and remotely monitoring printer components.

- Haines et al., U.S. Patent No. 6,529,692, teach a system and method for managing printer component inventories (consumables) wherein the system assists and/or automatically reorders inventories based on printer component events (e.g. "TONER LOW"). Haines et al. further teach that the printer component inventory management system and method further provides a user interface enabling users to interact with the system including but not limited to enabling users to order printer components via the Internet.

- Hauptman, Steven, U.S. Patent No. 6,566,890, a system and method for managing printer component inventories (stock management) wherein the system orders printer components based on printer component events/notifications.

- Haines, Robert, U.S. Patent No. 6,556,926, teaches a printer component inventory management system and method wherein printer components are ordered and replaced based on printer component rules triggered by printer component

events/information provided via periodically polling a plurality of printers and/or the receipt of a message/notification. Haines further teaches that the inventory management system further comprises first and second organizations as well as utilizes the Internet.

- Haines, Robert, U.S. Patent No. 6,842,588, teaches a printer component inventory and maintenance management system and method wherein the system schedules/orders replacement/consumable printer components and facilitates the scheduling of printer component/printer maintenance. Haines further teaches that the printer component includes a toner cartridge and a low toner printer component event.

- Haines et al., U.S. Patent No. 6,937,999, teach a system and method for managing printer component inventory comprising: one or more printers, one or more organizations (i.e. first, second, etc.), user configurable thresholds/rules/criteria, printer component event notification, user interface, ordering of printer components and Internet access.

- Haines, Robert, U.S. Patent No. 6,947,155, teaches a system and method for managing printer component inventory comprising: periodically polling printer components, ordering printer components based on printer components events/notifications/polls, a graphical user interface and user configurable printer component rules.

- Suyehira, Richard, U.S. Patent No. 6,947,161, teaches a system and method for managing printer component inventories comprising: an automatic ordering subsystem, order tracking subsystem, event notification, network interface card (i.e.

Internet) and first and second organizations (customer, vendor, supplier, etc.). Suyehira further teaches a printer component management system and method wherein the printer is a laser printer, the printer component is a toner cartridge and the printer component event is a low toner event.

- Tani, Masayuki, U.S. Patent Publication No. 2002/0059106, teaches a method and system for managing printer component inventories wherein the system provides for the ordering (provisioning), maintenance and recycling of printer components based on printer component event/status information collected by periodically polling the printer components.

- Willner et al., U.S. Patent Publication No. 2002/0065736, teach an online procurement system and method comprising: ordering/shipping of components, a plurality of organizations (sites, divisions, etc.), user configurable purchasing rules (rules-based replenishment, inventory management, approvals, notifications, etc.) and a user interface. Willner et al. further teach that the system is applicable for managing inventories of printer components such as toner cartridges.

- Haines et al., U.S. Patent Publication No. 2002/0073148, teach a user configurable system and method for managing printer component inventories comprising: printer component event notification, a plurality of organizations (suppler, seller, customer reseller, workgroups, users, etc.), user interface for defining printer component rules (configurations, thresholds, etc.), assisted/automatic printer component ordering and shipment via the Internet.

- White et al., U.S. Patent Publication No. 2002/0002074, teach a method and system for managing printer components comprising: printer component event notification and periodically polling printer components, ordering printer components (consumables, toner cartridges, etc.).

- Haines et al., U.S. Patent Publication No. 2002/0072998, teach a system and method for managing printer component inventory comprising: a graphical user interface, printer component ordering, printer component event notification and polling, user configurable/definable printer component rules (criteria, etc.) and first/second organizations.

- Ricoh Co. Ltd, JP 09-097284, teaches a method and system for managing printer component inventories wherein the system orders printer components based on printer component events/information.

- Ricoh Co. Ltd., JP 2000-194767, teaches a method and system for automatically ordering (managing) printer component inventories for a plurality of printers connected to a network.

- Ricoh Co. Ltd., JP 2001-034685, teaches a printer component (supply) management system and method wherein the system automatically orders and delivers (ships) printer component supplies based on printer component events/information.

- Seiko Epson Corp., JP 2001-325351, teaches a system and method for managing printer components wherein the system automatically orders and delivers (ships) via the Internet printer components based on printer component events/information.

- Hewlett-Packard Co., GB 2371129A, teaches a method and system for

managing printer component inventory comprising: ordering/shipping of printer

components based on user defined printer component rules triggered by printer

component events/notifications, first/second organizations and the Internet.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Scott L. Jarrett whose telephone number is (571) 272-

7033. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hafiz Tariq can be reached on (571) 272-6729. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

SJ
9/25/2005

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